By inhibiting snail signaling and miR-23a-3p, osthole suppresses the EMT-mediated metastatic ability in prostate cancer

## **Supplementary Material**

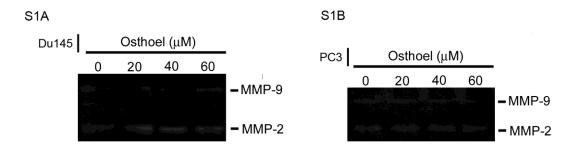


Figure S1: Effects of osthole on the activities of MMP-2 and MMP-9. DU145 cells (A) or PC3 cells (B) were treated with different concentrations of osthole for 24 h and then subjected to zymography to analyze the activities of MMP-2/9.

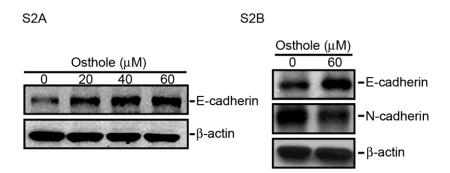


Figure S2: Effects of osthole on the expressions of EMT-related markers. PC3 cells were treated with different concentrations of osthole (0 $\sim$ 60  $\mu$ M) (A) or 60  $\mu$ M osthole (B) for 24 h and then subjected to a Western blot analysis to analyze the expression of EMT-related markers, E-cadherin and N-cadherin.

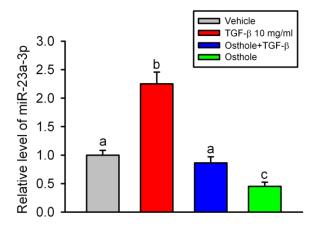


Figure S3: Effect of osthole on the TGF- $\beta$ -induced expression of mir-23a-3p. Serum-starved DU145 cells were pretreated with osthole (60  $\mu$ M) for 1 h followed by a 6-h TGF- $\beta$  (10 ng/ml) incubation and then subjected to real-time PCR to analyze the expression of mir-23a-3p. Data were analyzed using a one-way ANOVA with Tukey's post-hoc tests at 95% confidence intervals; different letters represent different levels of significance.

Table S1: Primers list for RT-PCR and qPCR assay.

## Primers used for RT- PCR

| Gene  | Species | Sequence (5' to 3')                       |
|-------|---------|---|
| Snail | Human   | 5'-TTTACCTTCCAGCAGCCCTA-3' (forward)      |
|       |         | 5'-GAGATCCTTGGCCTCAGAGA-3' (reverse)      |
| GAPDH | Human   | 5'-CGGAGTCAACGGATTTGGTCGTAT-3' (forward)  |
|       |         | 5'-AGCCTTCTCCATGGTTGGTGAAGAC-3' (reverse) |

## Primers used for ChIP

| Gene               | Species | Sequence (5' to 3')                              |
|--------------------|---------|--|
| E-cad promoter     | Human   | 5'- TAGAGGGTCACCGCGTCTAT-3' (forward)            |
| Snail binding site |         | 5'- TCACAGGTGCTTTGCAGTTC-3' (reverse)            |
| Gene               | Species | Sequence (5' to 3')                              |
| MiR-23a-3p         | Human   | 5'- AUCACAUUGCCAGGGAUUUCC-3'                     |
| MiR-146a           | Human   | 5'-UGAGAACUGAAUUCCAUGGGUU-3'                     |
| Mir-22-3p          | Human   | 5'-AAGCUGCCAGUUGAAGAACUGU-3'                     |
| RNU6B              | Human   | 5'-CGCAAGGATGACACGCAAATTCGTGAAGCGTTCCATATTTTT-3' |